



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,830	05/17/2006	Leifeng Cheng	056291-5286	5753
9629 7590 05/20/2008 MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004				
EXAMINER				
WILLIS, DOUGLAS M				
ART UNIT		PAPER NUMBER		
4161				
MAIL DATE		DELIVERY MODE		
05/20/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/579,830

Applicant(s)

CHENG, LEIFENG

Examiner

DOUGLAS M. WILLIS

Art Unit

4161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-8 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/86)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Status of the Claims / Priority

Claims 1-8 are pending in the current application. This application is a 35 U.S.C. § 371 National Stage Filing of International Application No. PCT/GB2004/04934, filed November 24, 2004, which claims priority under 35 U.S.C. § 119(a) to GB 0327331.5, filed November 25, 2003.

Restrictions

Restriction is required under 35 U.S.C. § 121 and § 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1-5, is drawn to compounds and pharmaceutical compositions of formula (I), where X = O, S, Y = O, S, R₁ = -Ph, and R₂ = -Ph. **NOTE: Claims 1 and 5 are generic to this group. If Group I is elected, applicant must elect a provisional species, for searching purposes and prosecution on the merits only, clearly identifying a compound of formula (I), including a detailed explanation of how all variables of formula I are read upon.**

Group II, claims 1-5, is drawn to a compound of formula (I), where X, Y, R₁ and R₂ are independently selected from recited groups in a combination not described above, and a pharmaceutical formulation thereof. **NOTE: Claims 1 and 5 are generic to this group. If Group II is elected, applicant must elect a provisional species, for searching purposes and prosecution on the merits only, clearly identifying a compound of formula (I), including a detailed explanation of how all variables of formula I are read upon. Also, further restriction may be required for this group.**

Group III, claims 6-8, is drawn to a method of treating obesity... comprising administering... a compound of formula (I)... and use of a compound of formula (I) for the preparation of a medicament for the treatment or prophylaxis of obesity.... **NOTE:**

Claim 7 is generic to this group. If Group III is elected, applicant must elect a provisional species, for searching purposes and prosecution on the merits only, clearly identifying: a) a compound of formula (I), including a detailed explanation of how all variables of formula (I) are read upon, b) a particular use, selected from those listed in claim 6, for the compound of formula (I), and c) a disease or disorder, selected from those listed in claim 7, targeted by the method recited in claim 7. Also, if group III is elected, claim 6 must be amended to comply with normal US claim practice or be canceled due to reference towards non-statutory subject matter under 35 U.S.C. § 101. Further restriction may be required once unstatory "use" claims become compliant under 35 U.S.C. § 101. Finally, if group III is elected, further restriction will limit scope to one of the compound groups I-II.

As set forth in Rule 13.1 of the Patent Cooperation Treaty (PCT), "the international application shall relate to one invention only or to a group of inventions." Moreover, as stated in PCT Rule 13.2, the requirement of unity of invention referred to in PCT Rule 13.1 shall be fulfilled "where a group of inventions is claimed in one and the same international application only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features." The expression 'special technical features' shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art, so linked, as to form a single general inventive concept.

The 'special technical feature' among all groups is compounds and pharmaceutical compositions of formula (I), particularly possessing a pyrrolo-pyrazine core. The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding 'special technical feature' for the following reasons: US 7,019,026 [p. 15, column 1, lines 25-27] indicates that the pyrrolo-pyrazine core is not novel and teaches the use of the compounds and pharmaceutical compositions of formula (I) as modulators of protein tyrosine phosphatases [p. 2, column 1, lines

15-35]. Consequently, the compounds and pharmaceutical compositions of formula (I) do not share a 'special technical feature' with the process for their use, as recited in claims 6-8, and do not relate to a single general inventive concept under PCT Rule 13.1.

Rejoinder

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. § 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. § 121 does not apply where the restriction requirement is

withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Election of Species

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

- A. Compounds and pharmaceutical compositions of formula (I), in which... and a pharmaceutical formulation thereof. [claims 1-5]
- B. A method of treating obesity... comprising administering... a compound of formula (I)... and use of compounds and pharmaceutical compositions of formula (I) for the preparation of a medicament for the treatment or prophylaxis of obesity.... [claims 6-8]

The claims are deemed to correspond to the species listed above in the following manner:

Groups I-VII - claims 2-5 and Group VIII - claims 6 and 8.

The following claims are generic: Groups I-II - claims 1 and 5; and Group III - claim 7.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding 'special

technical features' for the following reasons: US 7,019,026 [p. 15, column 1, lines 25-27] indicates that the pyrrolo-pyrazine core is not novel and teaches the use of the compounds and pharmaceutical compositions of formula (I) as modulators of protein tyrosine phosphatases [p. 2, column 1, lines 15-35].

There is an examination and search burden for these patentably distinct species due to their mutually exclusive characteristics. The species require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. § 101 and/or 35 U.S.C. § 112, first paragraph.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. § 103(a) of the other invention.

Applicant is required, in reply to this action, to elect a single species, *for searching purposes and prosecution on the merits only*, to which the claims shall be restricted if no

generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Applicant is advised that the reply to this requirement to be complete must include: **(i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.**

A telephone call was made to Mr. Donald Bird on May 12, 2008 to request an oral election to the above species requirement, but no election was made. On May 14, 2008, species election was requested via mail correspondence.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOUGLAS M. WILLIS whose telephone number is 571-270-5757. The examiner can normally be reached on Monday thru Friday from 8:00-5:00 EST.

If attempts to reach the Examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Nolan, can be reached on 571-272-0847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. M. W./
Examiner, Art Unit 4161

/Patrick J. Nolan/
Supervisory Patent Examiner, Art Unit 4161